

REMARKS

Applicants submit this Supplemental Amendment and Response to supplement the Amendment and Response filed on April 28, 2008. Claims 19, 36, and 53 have been amended without intending to abandon or to dedicate to the public any patentable subject matter. Accordingly, Claims 19-68 are currently pending in the application.

Applicants would also like to thank the Examiner for courtesies extended on June 26, 2008, during which Applicants' representative and the Examiner discussed the prior art currently being cited against the claimed invention. The Interview Summary mailed on July 11, 2008, accurately reflects the contents of said discussion with the exception that the "admission" referred to by the Examiner is somewhat inaccurate.

With regards to the possible 112 rejection raised by the Examiner, Applicants would like to clarify that the lock core and knob shaft are not actually equivalent elements. Rather, the knob shaft 11 of the present invention is depicted as being located in the hollow cylindrical receptacle 12. As an alternative, a lock core can be mounted in the hollow cylindrical receptacle 12. (*See e.g.*, Published Application at ¶ 26).

Applicants respectfully submit that none of the cited prior art teaches or suggests at least the following italicized features of the independent claims:

19. An electromechanical lock cylinder that cooperates with evaluation electronics to recognize access authorization, comprising:
a housing that includes two opposite cylindrical receptacles, in which either a lock core, which can be operated by a key, or a knob shaft, which is connected to rotate in unison with a knob, are mounted to rotate, in which the lock cores or knob shafts cooperate with a lock tab, which operates, in particular, a bolt or a latch of a door lock, and, with a fitting key or access authorization, an electromechanically driven blocking or coupling element is moved from a rest position to an operating position and produces a splined connection between the key or knob and the lock tab, *whereas the lock tab, in the rest position of the blocking or coupling element, is freely rotatable relative to the two lock cores or the two knob shafts, wherein the blocking or coupling element is arranged on or in the lock core or on or in the knob shaft and rotates with it, and includes an eccentric that is rotatable between a first and second position such that when the eccentric is in the first position, a driver in communication therewith is in a rest position, and when the eccentric is rotated from the first position to the second position, the driver is moved in a direction*

substantially perpendicular to a long axis of the knob shaft into an operating position in which the driver engages in a recess of the lock tab or rotary sleeve, on which the lock tab is arranged.

36. An electromechanical lock cylinder, which cooperates with an evaluation electronics to recognize access authorization, comprising:

a housing that includes two opposite cylindrical receptacles, in which, on one side of the housing, a lock core, which can be operated by a key, and, on the opposite side, a knob shaft, which is connected to rotate in unison with a knob, are mounted to rotate, in which the lock core and/or knob shaft cooperate with a lock tab, and especially operate a bolt or latch of a door lock, and with a fitting key and/or access authorization, an electromechanically driven blocking or coupling element is moved from a rest position to an operating position and produces a splined connection between the key and/or knob and the lock tab, *whereas the lock tab, in the rest position of the blocking or coupling element, is freely rotatable relative to the lock core and the knob shaft, wherein the blocking or coupling element is arranged on or in the lock core or on or in the knob shaft and rotates with it, and also includes an eccentric that is rotatable between a first and second position such that when the eccentric is in the first position, a driver in communication therewith is in a rest position, and when the eccentric is rotated from the first position to the second position, the driver is moved in a direction substantially perpendicular to a long axis of the knob shaft into an operating position in which the driver engages in a recess of the lock tab or rotary sleeve, on which the lock tab is arranged.*

53. An electromechanical lock cylinder, which cooperates with evaluation electronics to recognize an access authorization, comprising:

a housing, which includes a cylindrical receptacle, in which either a lock core, which can be operated by a key, or a knob shaft, which is connected to rotate in unison with a knob, is mounted to rotate, in which the lock core or the knob shaft cooperate with a lock tab, which operates, in particular, a bolt or latch of a door lock, and, with a fitting key and/or access authorization, electromechanically driven blocking or coupling element is moved from a rest position to an operating position and produces a splined connection between the key or knob and the lock tab, *whereas the lock tab, in the rest position of the blocking or coupling element, is freely rotatable relative to the lock core or to the knob shaft, wherein the blocking or coupling element is arranged on or in the lock core or on or in the knob shaft and rotates with it, and also includes an eccentric that is rotatable between a first and second position such that when the eccentric is in the first position, a driver in communication therewith is in a rest position, and when the eccentric is rotated from the first position to the second position, the driver is moved in a direction substantially perpendicular to a long axis of the knob shaft into an operating position in which the driver engages in a recess of the lock tab or rotary sleeve, on which the lock tab is arranged.*

The present invention, in certain embodiments, provides an electromechanical drive for a locking pin within the lock core or the knob shaft respectively. The drive comprises an eccentric which moves the locking pin between a rest position and an operating position. This eccentric may

be driven by an electric motor device. The motor device turns together with the lock core or knob shaft respectively. The use of an electric motor drive has the advantage to be better controllable (left or right turn) and comprises a low current consumption (see page 5, third paragraph and page 4, last paragraph, of the English text). The prior art does not disclose such an arrangement of an eccentric. Moreover, since the movement of the locking pin relies on a rotary motion of the eccentric, it is difficult for a potential attacker to engage the locking pin by applying a blunt force to the outside of the lock, since such a force will not likely cause the eccentric to rotate. This is in stark contrast to the prior art which relies on lateral movement of lock elements to engage/disengage a lock.

Goldman

Goldman describes a locking cylinder which can be operated with an electromagnetic device. There is neither a motor nor an eccentric disclosed in Goldman. The cap 64 (see Fig. 3A of Goldman) is not an electromagnetically driven eccentric as stated by the Examiner. The driving means for the cap 64 includes an electromagnetic means and not a motor that turns an eccentric. This particular fact leaves the lock of Goldman susceptible to attacks whereby an attacker introduces an appropriate magnet to the knob of the lock. This may result in the pin being driven into the engaged position without actually presenting an appropriate credential/key.

Additionally, this cap 64 appears to be a plate which can be to-and-from movable in the axial direction of the locking core (see column 2, lines 39-43 and Figs. 2 and 3A of Goldman) in order to effect an engaging position of the clutch. Furthermore, the driving means of Goldman are located within the knob and not within or on the locking core or knob shaft respectively. This means that if a proper axial force is applied to the knob (*e.g.*, via a hammer or the like), the knob may be engaged and illicit access may be granted to a secure area. The present invention, on the other hand, provides that the electromechanical drive for the locking pin are in the lock core of the knob shaft.

Yet another difference is that the lock tab 20 of Goldman is integral to one part of the locking core. It cannot rotate independently of the knob shaft or lock core as claimed in the currently pending independent claims.

It appears as though this particular prior art document is identical and has the same drawbacks of the prior art patent discussed at page 2 of the original specification. Embodiments of the present invention address such drawbacks.

Buser

Buser discloses a locking cylinder with an electromagnetic locking mechanism. The driving means are located in the housing of the cylinder and not in the lock core or knob shaft respectively. Further, there is no eccentric provided. Buser is primarily relied upon to show that the use of sensors in locks are known. Buser, however, does not overcome the other shortcomings of Goldman in that Buser does not teach, suggest, or make obvious providing an electromechanically driven locking pin that resides on or in the lock core or the knob shaft. Also, Buser does not show that the lock tab can rotate independently of the knob shaft or lock core. Notwithstanding all of these shortcomings, the Examiner has further failed to show how one skilled in the art would modify Goldman with Buser to teach any of the currently pending claims. This is also due to the fact that Neither Goldman nor Buser teach or suggest all of the elements of the claimed invention. Accordingly, Applicants respectfully submit that the currently pending claims are allowable in view of Goldman and Buser.

Based upon the foregoing, Applicant believes that all pending claims are in condition for allowance and such disposition is respectfully requested. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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